

**CLAIMS:**

1. A method comprising:  
in a first processor of a medical device, generating a handshake signal;  
providing the handshake signal to a second processor of the medical device; and  
5 causing the second processor to reset the first processor when the handshake signal is  
not provided within a prescribed time interval.

2. The method of claim 1, further comprising resetting the first processor when  
the handshake signal is provided before a minimum time or after a maximum time.

3. The method of claim 1, further comprising disabling therapy output hardware  
when the handshake signal is not provided within the prescribed time interval.

4. The method of claim 1, further comprising detecting an abnormal power  
condition and disabling therapy output hardware in response to the abnormal power  
condition.

5. The method of claim 1, further comprising detecting a voltage of the medical  
device.

6. The method of claim 5, further comprising selectively disabling therapy  
output hardware as a function of the detected voltage.

7. The method of claim 1, wherein the medical device comprises at least one of a  
therapy control module, a system controller, a user interface module, and a patient  
parameters module.

8. The method of claim 7, wherein the user interface module is communicatively  
coupled to at least one of a keyboard, a display screen, and a strip chart recorder.

9. The method of claim 7, wherein the patient parameters module is configured to obtain at least one of ECG information, vital sign measurements, non-invasive blood pressure (NIBP) measurements, and SpO<sub>2</sub> information from a patient.

5 10. The method of claim 1, wherein the medical device is an automated external defibrillator.

11. A processor-readable medium containing processor-executable instructions for:  
10 in a first processor of a medical device, generating a handshake signal;  
providing the handshake signal to a second processor of the medical device; and  
causing the second processor to reset the first processor when the handshake signal is not provided within a prescribed time interval.

15 12. The processor-readable medium of claim 11, further containing instructions for resetting the first processor when the handshake signal is provided before a minimum time or after a maximum time.

20 13. The processor-readable medium of claim 11, further containing instructions for disabling therapy output hardware when the handshake signal is not provided within the prescribed time interval.

25 14. The processor-readable medium of claim 11, further containing instructions for detecting an abnormal power condition and disabling therapy output hardware in response to the abnormal power condition.

15. The processor-readable medium of claim 11, further containing instructions for detecting a voltage of the medical device.

30 16. The processor-readable medium of claim 15, further containing instructions for selectively disabling therapy output hardware as a function of the detected voltage.

17. The processor-readable medium of claim 11, wherein the medical device comprises at least one of a therapy control module, a system controller, a user interface module, and a patient parameters module.

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18. The processor-readable medium of claim 17, wherein the user interface module is communicatively coupled to at least one of a keyboard, a display screen, and a strip chart recorder.

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19. The processor-readable medium of claim 17, wherein the patient parameters module is configured to obtain at least one of ECG information, vital sign measurements, non-invasive blood pressure (NIBP) measurements, and SpO<sub>2</sub> information from a patient.

20. The processor-readable medium of claim 11, wherein the medical device is an automated external defibrillator.

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21. A medical device comprising:  
a first functional module comprising a first embedded processor configured to generate a handshake signal; and  
a second functional module comprising a second embedded processor configured to receive the handshake signal and to reset the first embedded processor when the handshake signal is not provided within a prescribed time interval.

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22. The medical device of claim 21, wherein at least one of the first and second functional modules comprises a windowed watchdog timer.

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23. The medical device of claim 21, wherein at least one of the first and second embedded processors is configured to reset when the handshake signal is provided before a minimum time or after a maximum time.

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24. The medical device of claim 21, further comprising therapy output hardware, wherein at least one of the first and second embedded processors is configured to disable the therapy output hardware when the handshake signal is not provided within the prescribed time interval.

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25. The medical device of claim 21, further comprising a voltage monitor configured to detect an abnormal power condition and to disable therapy output hardware in response to the abnormal power condition.

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26. The medical device of claim 25, wherein the voltage monitor is further configured to detect a voltage of the medical device.

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27. The medical device of claim 26, wherein the voltage monitor is further configured to selectively disable therapy output hardware as a function of the detected voltage.

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28. The medical device of claim 21, wherein the medical device comprises at least one of a therapy control module, a system controller, a user interface module, and a patient parameters module.

29. The medical device of claim 28, wherein the user interface module is communicatively coupled to at least one of a keyboard, a display screen, and a strip chart recorder.

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30. The medical device of claim 28, wherein the patient parameters module is configured to obtain at least one of ECG information, vital sign measurements, non-invasive blood pressure (NIBP) measurements, and SpO<sub>2</sub> information from a patient.

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31. The medical device of claim 21, wherein the medical device is an automated external defibrillator.